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EXAMINER

KUMAR, PREETI

ART UNIT

PAPER NUMBER

1751

5

DATE MAILED: 01/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/751,047

Applicant(s)

CHO ET AL.

Examiner

Preeti Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☒ Claim(s) 54 is/are objected to.
- 8) ☒ Claim(s) 1-55 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-54, drawn to a detergent composition, classified in class 510, subclass 221.
  - II. Claim 55, drawn to a method of cleaning tableware, classified in class 134, subclass 25.2.
2. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product of Group I can be used in the materially different method such as in washing clothes.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. J. Patrick Finn on December 21, 2001 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-54. Affirmation of this election must be made by applicant in replying to this Office action. Claim 55 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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***Priority***

5. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

***Specification***

6. The abstract of the disclosure is objected to because applicant has failed to identify the definition of the abbreviation, *LADD*. Correction is required. See MPEP § 608.01(b).
7. The use of the trademark Lemon Cascade Gel, Alcalase<sup>TM</sup>, Esperase<sup>TM</sup>, Maxacal, Maxapem, Maxatase, Opticlean, Optimase, Carbopol<sup>TM</sup> 676, Pluronic<sup>TM</sup> 25R2, Burcospense<sup>TM</sup> AP, Savinase<sup>TM</sup>, and Surcide P has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
9. Claims 10-17, 25, 54 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 10-17 contain the trademark/trade name Lemon Cascade Gel.

Claim 25 contains the trademark/trade names Alcalase<sup>TM</sup>, Esperase<sup>TM</sup>, Maxacal, Maxapem, Maxatase, Opticlean, Optimase, and Savinase. Claim 54 contains the trademark/trade names Carbopol<sup>TM</sup> 676, Pluronic<sup>TM</sup> 25R2, Burcospense<sup>TM</sup> AP, Savinase<sup>TM</sup>, and Surcide P.

Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a detergent and enzyme and, accordingly, the identification/description is indefinite.

### ***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 1-26, 32-35, 41-43 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Schreiber (US 5,399,284).

Regarding claims 1-24, Schreiber teaches a process for removing especially starch-containing impurities from crockery in dishwashers. Schreiber's invention is free of chlorine sources and phosphate builders and has one or more proteases or amylases in the amount of 0.005 to 0.125 Artson units, and buffering substances which act in the pH range from 5 to 9. See abstract. Specifically, Schreiber teaches in an example in column 3, lines 50-65, the utility of a mixture of amylases and proteases to make a concentrated surfactant solution having a pH of 7.2 +/- 0.4.

Note that, with respect to the activities of the enzymes, as recited by the instant claims 5, 6, 8, 9, the Examiner asserts that the broad teachings of Schreiber would

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encompass compositions comprising the same enzymes, having the same activities as recited by the instant claims since Schreiber teaches compositions containing the same components in the same proportions as recited by the instant claims.

Note that, with respect to the performance in the standard wash test, as recited by the instant claims 10-17, the Examiner asserts that the broad teachings of Schreiber would encompass compositions having the same performance values as recited by the instant claims since Schreiber teaches tableware cleaning compositions containing the same components in the same proportions as recited by the instant claims.

Regarding claims 32-35, Schreiber's invention comprises low foaming nonionic surfactants and teaches the utility of ethylene oxide as a foam suppressant. The surfactant concentrations can be in the amount of 1-3% by weight. See col.2, ln.20-35.

Regarding claims 41-43, Schreiber teaches the utility of at least one non-phosphate detergent builder. In an example in column 3, Schreiber's invention comprises sodium bicarbonate and sodium carbonate. See col.3, ln.50-65.

Accordingly, the teachings of Schreiber are sufficient to anticipate the material limitations of the instant claim. However, even if Schreiber's invention does not inherently have a pH less than 7.0, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a detergent composition having a pH value less than 7.0, with a reasonable expectation of success, because the broad teachings of Schreiber teach that the amounts of added components may be varied and that the composition generally may have a pH of below 7.0.

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14. Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schreiber (US 5,399,284).

Schreiber is relied upon as set forth above. Schreiber does not specifically teach a detergent comprising a thixotropic thickener and the other requisite components of the composition in the specific proportions as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a detergent composition containing a thixotropic thickener and the other requisite components of the composition in the specific proportions as recited by the instant claims, with a reasonable expectation of success and similar results with respect to other disclosed components, because the broad teachings of Schreiber suggest a detergent composition containing a thickener, and further, thixotropic thickeners are well known in the art.

15. Claims 1-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall et al. (US 5,691,292).

Regarding claims 1-4, 7, 23, and 24, Marshall et al. teach a liquid automatic dishwashing detergent composition substantially free of chlorine bleach, containing 0.001% to about 5% of active protease or amylase enzymes and having a pH between about 7 and about 11. See abstract col.2, ln.60-66.

Note that, with respect to the activities of the enzymes, as recited by the instant claims 5, 6, 8, 9, the Examiner asserts that the broad teachings of Marshall et al. would encompass compositions comprising the same enzymes, having the same activities as



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recited by the instant claims since Marshall et al. teach compositions containing the same components in the same proportions as recited by the instant claims.

Note that, with respect to the performance in the standard wash test, as recited by the instant claims 10-17, the Examiner asserts that the broad teachings of Marshall et al. would encompass compositions having the same performance values as recited by the instant claims since Marshall et al. teach tableware cleaning compositions containing the same components in the same proportions as recited by the instant claims.

Regarding claim 25, Marshall et al. teach suitable proteolytic enzymes include Alcalse,<sup>TM</sup> Esperase<sup>TM</sup>, Savinase<sup>TM</sup>, Maxatase, Maxacal and Maxapem. See col.3, ln.10-13.

Regarding claims 26-31, Marshall et al. teach a thixotropic thickening agent present in the composition from about 0.1% to about 10% by weight of the detergent composition. See col.4, ln.20-25. Marshall et al. teach the preferred cross-linked polycarboxylate polymer is preferably a carboxyvinyl polymer. See col.4, ln.33-34. Other types of thickeners disclosed by Marshall et al. are natural gums, such as xanthan gum, and the like. See col.5, ln.30-31.

Regarding claims 32-35, Marshall et al teach that a composition can contain from about 0.01% to about 40% of a detergent surfactant which results in a low foaming detergent composition. See col.8, ln.50-55. In column 9, Marshall et al. teach the various examples of nonionic surfactants, including, polyethylene glycols or

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polypropylene glycols have a molecular weight of from about 1,400 to about 30,000 Daltons. See col.9, ln. 1-50.

Regarding claims 36-40, Marshall et al. teach an enzyme stabilizing system utilizing calcium from about 0.001% to about 10% or boric acid from about 0.05% to about 7% by weight. See col.6 ln.11-65.

Regarding claims 41-44, Marshall et al. teach that detergency builders such as citrate builders can be added in levels from about 0.01% to about 40% by weight of the composition. See col.11, ln.30-50.

Regarding claims 45-51, Marshall et al. teach the use of detergency builders and organic dispersants, such as polyacrylates or acrylate-containing copolymers at levels of 0 to about 20% and having a molecular weight from about 1,000 to about 500,000 Daltons. See col.12, ln.1-40.

Regarding claims 52-53, Marshall et al. teach the same detergent compositions in example I and example II.

However, Marshall et al. do not specifically teach a liquid automatic dishwashing detergent comprising at least one detergent enzyme and having a pH value less than 7.0 in addition to the other requisite components of the composition as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a liquid automatic dishwashing detergent comprising atleast one detergent enzyme and having a pH value less than 7.0 in addition to the other requisite components of the composition, with a reasonable expectation of

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success, because Marshall et al. suggest a liquid automatic dishwashing detergent comprising atleast one detergent enzyme and having a pH value about 7.0 in addition to the other requisite components of the composition.

***Allowable Subject Matter***

16. Claim 54 is objected to as being dependent upon a rejected base claim, but may be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and any uncertainty from use of trademark or trade name is corrected by identifying the chemical name of any particular material or product. None of the references of record, teach or suggest a detergent composition having the specific components in the specific proportions as recited by the instant claim 54.

***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Remaining references cited but not relied upon are considered to be cumulative to or less pertinent than those relied upon or discussed above.

18. Applicant is reminded that any evidence to be presented in accordance with 37 CFR 1.131 or 1.132 should be submitted before final rejection in order to be considered timely.

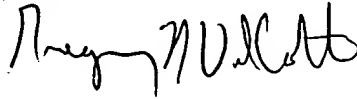
19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 703-305-0178. The examiner can normally be reached on M-F 9:00am - 5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 703-308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

**GREGORY DELCOTTO**  
**PRIMARY EXAMINER**



Preeti Kumar  
Examiner  
Art Unit 1751

PK  
January 11, 2002